



## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>G21C 19/44, 19/38, B01F 1/00</b>		A3	(11) International Publication Number: <b>WO 99/63545</b> (43) International Publication Date: 9 December 1999 (09.12.99)
(21) International Application Number: <b>PCT/GB99/01537</b>		(74) Agent: HARRISON GODDARD FOOTE; Belmont House, 20 Wood Lane, Leeds LS6 2AE (GB).	
(22) International Filing Date: 3 June 1999 (03.06.99)		(81) Designated States: CA, CN, JP, KR, RU, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(30) Priority Data: 98110181 3 June 1998 (03.06.98) RU		<b>Published</b> With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
(71) Applicant (for all designated States except US): BRITISH NUCLEAR FUELS PLC [GB/GB]; Risley, Warrington, Cheshire WA3 6AS (GB).		(88) Date of publication of the international search report: 27 January 2000 (27.01.00)	
(72) Inventors; and (75) Inventors/Applicants (for US only): RAGINSKII, Leonid Solomonovich [RU/RU]; ul. Marshala Vershinina, 4-2-8, Moscow, 123060 (RU). MORKOVNIKOV, Vyacheslav Evgen'evich [RU/RU]; ul. Zemlyanoi val, 52/16-156, Moscow, 109240 (RU). MOROZOV, Nikolai Viktorovich [RU/RU]; Rublevskoe shosse, 15-47, Moscow, 121108 (RU). ELISEEV, Sergei Petrovich [RU/RU]; Novye Cheremushki, kvartal, 32-a-4-7, Moscow, 113461 (RU). RANCE, Peter [GB/GB]; 33 Main Street, St Bees, Cumbria CA27 0AA (GB). TINSLEY, Timothy [GB/GB]; 14 Red Beck Park, Cleator Moor, Cumbria CA25 5EX (GB). DENNISS, Iain [GB/GB]; 14 Westfield Drive, Egremont, Cumbria CA22 2JJ (GB).			

(54) Title: APPARATUS FOR DISSOLVING NUCLEAR FUEL

## (57) Abstract

Nuclear fuel dissolution apparatus comprises a perforated sloping ramp (6) located within a process chamber (1). A pulsation member creates pulses in the solvent in the container, and the perforations of the sloping ramp are designed to direct pulses of solvent along and up the ramp. A discharge point (17, 18) for fuel holes is disposed at an upper region of the ramp. A method of dissolving fuel in chopped nuclear fuel pins is also described.

